Commonwealth of Pennsylvania
DEPARTMENT OF PUBLIC INSTRUCTION
Harrisburg

Manual of Instruction

COURSE 7

INCREASING POULTRY FOR MEAT PRODUCTION

Rural War Production Training Program

Bldg.

B630.7
P38ma
no.7

Prepared under the authority of the State Board for Vocational Education by the Department of Rural Education, The Pennsylvania State College

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PREFACE

Course 7, Increasing Poultry for Meat Production, is one of a series of courses which have been prepared in the "Food for Victory" program. The objective has been to set forth in brief form the phases of poultry husbandry considered pertinent to the immediate problem of Increasing Poultry for Meat Production in Pennsylvania.

This manual is organized into five sections:

I. Suggested Course Calendar

II. Introduction

III. Suggested Lesson Outlines

IV. Suggested Reference Material
   Books (A)
   Bulletins and Circulars (B)
   Visual Aids (C)

V. Suggested Approved Practices Which Should Develop from the Course

The manual was prepared by Russell B. Dickerson, Itinerant Teacher-Trainer, Specialist in Young and Adult Farmer Instruction, Department of Rural Education, The Pennsylvania State College. The preparation was directed by H. C. Fetterolf, Chief, Agricultural Education, State Department of Public Instruction; and Henry S. Brunner, Head, Department of Rural Education, The Pennsylvania State College.

Special recognition is given to Professor H. C. Knandel, Head, Department of Poultry Husbandry, The Pennsylvania State College, together with members of his staff, for invaluable assistance and guidance in setting up the suggested lesson outlines and in deciding upon the most current references pertinent to "Increasing Poultry for Meat Production."

I. SUGGESTED COURSE CALENDAR

Lesson Number	Name of Job	Date of Meeting
1	Producing Poultry Meat in War-time	
2	Selecting Baby Chicks for Meat Production	
3	Brooding Chicks and Rearing Young Stock	
4	Determining the Food Requirements of Chicks and Growing Stock for Meat Production	
5	Feeding Chicks and Growing Stock for Meat Production	
6	Controlling Diseases and Parasites of Young Stock	
7	Fattening and Conditioning Poultry for Market	
8	Killing and Dressing Poultry for Market	
9	Marketing Poultry	
10	Producing Turkeys, Ducks and Geese for Meat	

II. INTRODUCTION

This manual was prepared as a guide to teachers and supervisors in conducting instruction with young and adult farmers in the OSYA "Food for Victory" program. It is designed to facilitate more effective preparation by the teachers undertaking to meet the emergency need through commodity courses.

The ten (10) suggested lesson topics or jobs were selected after careful analysis of the whole field of poultry for meat production, in conference with Professor H. C. Knandel. The lesson outlines are purely suggestive and it is expected that each lesson will be modified to meet local conditions.

In many instances jobs other than the ten included herein will be considered important enough in certain sections of the commonwealth to be included along with, or instead of, some of those listed. It is expected also that more than one meeting will be necessary to give satisfactory instruction in some jobs.

The aims and the problems for study and discussion set up in each of the ten lesson outlines are considered applicable to the respective jobs but they are by no means considered all-inclusive. If any or all of the suggested problems for study and discussion are incorporated into a similar course of study the suggested references will be found helpful to the busy teacher. They are offered for the express purpose of bringing teacher efficiency to its best.

The reference materials suggested on pp. 20-22 are considered pertinent to the immediate problem of Increasing Poultry for Meat Production. It is advised that at least one copy of each should be available for easy reference. It is assumed that a variety of references that are pertinent to Increasing Poultry for Meat Production, are already on hand in most schools. They will probably include texts, bulletins, charts, film strips and others, and they may furnish a large part of the reference material needed. It is important however, to use the most current references for approved practices in meeting emergency problems. The bulletins of The Pennsylvania Experiment Station are prepared for Pennsylvania conditions and they generally are the most reliable sources available.

For the convenience of the teacher, the suggested reference materials on pp. 20-22 are given by key designation as follows: Books (A), Bulletins and Circulars (B), and Visual Aids (C). In preparing a lesson on any one job, the teacher will find specific references to the different problems suggested. For example, (1) if the reference is A-1, p. 7, it refers to material on page 7 of the first

book listed, the material found there is considered pertinent to the problem suggested; (2) if the reference is B-3, it refers to bulletin No. 3 on the list and implies that the content of the entire bulletin is pertinent to the problem; (3) if C-6 is given as a reference it will refer to item No. 6 in the Visual Aids list.

The suggested approved practices which should develop from the course are set forth on p. 23 as guides to the teacher. During each lesson certain conclusions should be reached which should result in the adoption of approved practices by individual farmers. These will constitute the basis for the program of follow-up instruction.

Teachers who plan to organize and conduct a course in Increasing Poultry for Meat Production are urged to follow the suggestions given in another manual of instruction in this series entitled, "Suggestions To Teachers And Supervisors For The Development And Conduct Of Agricultural Commodity Courses."[1]

The suggestions set forth in that manual were prepared for the purpose of aiding individuals in organizing and conducting Agricutural Commodity Courses in the Rural War Production Training program. The manual includes the following sections:

I. Objectives of Courses in the Increased Production of Farm Commodities.

II. Things to do Before Organizing a Commodity Course.

III. Form for Surveying Out-of-School Rural and Non-Rural Persons.

IV. Suggested Teacher Preparation.

V. A Suggested Teaching Plan Using the Conference Procedure.

VI. The Importance of Current References.

VII. Providing Follow-up of Instruction.

[1] Rural War Production Training, State Department of Public Instruction, Harrisburg, Pa.

III. SUGGESTED LESSON OUTLINES

JOB I. PRODUCING POULTRY MEAT IN WAR-TIME

A. Teaching aims—To develop the ability of the farmer—

1. To meet the demands of this country and the United Nations for increasing quantities of poultry meat.
2. To recognize the importance of poultry for meat production in the war emergency.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—1
2. (B)—1, 2, 3, 4, 5, 35, 37
3. (C)—16

C. Suggested problems for study and discussion—

1. The need for increased production of poultry meat.
2. The economic position of farm poultry. B-1, p. 1.
3. Surveying the poultry industry with respect to increasing the production of meat. A-1, Ch. 1; B-2; B-3; B-4; B-5, pp. 7-10
   a. Fowl numbers and value in the U. S., in Pa., and locally.
   b. Poultry meat production and value in the U. S., in Pa., and locally.
   c. Poultry meat consumption in the U. S., in Pa., and locally.
   d. Meat prices and probable trend.
   e. The labor situation and probable trend.
   f. Adjustments needed to meet changing conditions.
4. Financing the poultry enterprise.
   a. Secure credit and credit information from—
      (1) The local bank
      (2) The production credit association
      (3) The farm security administration

JOB 2. SELECTING BABY CHICKS FOR MEAT PRODUCTION

A. Teaching aims—To develop the ability of the farmer—

1. To select chicks of desirable breeds and strains for maximum meat production.
2. To purchase healthy chicks from disease-free sources.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—3, 4, 6
2. (B)—5, 6, 15, 36
3. (C)—10, 14, 15

C. Suggested problems for study and discussion—

1. Choosing the breeds adapted to meat production—Broilers, Fryers, Roasters, Capons. A-3, Ch. 23; A-4, pp. 345-355; B-6, p. 1; B-5, p. 15.
   a. American breeds. A-6.
      (1) Varieties and strains of these breeds.
      (2) Crossbreds (Hybrids) of these varieties. B-15, p. 30.
2. Breeds, varieties, strains and crossbreds are important from the standpoint of rapid growth, efficient gains, and full feathering.
3. Purchase chicks from reliable nearby sources.
4. Purchase chicks from disease-free flocks.
5. Select well-bred healthy chicks.
6. Consider hatching dates with respect to meeting the market demands for poultry meat.
   a. Brooding facilities with respect to weather conditions are important.
   b. Availability of labor for brooding is essential.
   c. Market prices at different times of the year should be considered.

JOB 3. BROODING CHICKS AND REARING YOUNG STOCK

A. Teaching aims—To develop the ability of the farmer—
   1. To determine the most efficient methods of brooding chicks.
   2. To rear a high percentage of meat birds.
   3. To obtain rapid, uniform, and efficient growth.

B. References for this lesson—(see key list on pp. 20-22)
   1. (A)—1, 2
   2. (B)—6, 7, 8, 9, 10, 15, 19
   3. (C)—1, 2, 3, 4, 5, 13

C. Suggested problems for study and discussion—
   1. Suitable housing is essential. A-1, p. 74; B-9.
      a. Provide adequate floor space.
         NOTE: See Course 8, Job 2, for further suggestions on housing poultry.
   2. Types of brooder houses. A-1, p. 76; C-1; C-2.
      a. Colony
      b. Multiple-unit
      c. Battery
   3. Types of brooders (source of heat). A-1, p. 77.
      a. Colony
         (1) Coal
         (2) Wood
         (3) Gas
         (4) Oil
         (5) Electric. B-7
      b. Long continuous pipe
      c. Battery
   4. The selection of a brooder is dependent upon several factors. A-1, p. 8
   5. Preparing the brooder house and brooder for the chicks. A-2, p. 446; B-15
      a. Provide essential equipment. A-1, pp. 84-87; C-3
         (1) Hover and guard
         (2) Litters—clean sand, shavings, ground corn cobs, etc.
         (3) Hoppers
         (4) Waterers
         (5) Roosts

6. Regulating brooder temperature. A-1, p. 82; A-2, p. 458
   a. Operating the brooder. A-2, pp. 448-450; C-4
7. Providing ventilation. A-1, p. 87
   a. Provide pure air without drafts.
8. Providing sanitation. A-1, p. 88
9. Providing protection. A-1, p. 88
10. Moving the chicks to the range. A-1, p. 90
11. Separating the sexes. A-1, p. 90
12. Caponizing the cockerels.
    a. Why caponize. A-1, p. 255
    b. When to caponize. A-1, p. 258; B-6, p. 2
    c. Technique of caponizing.
       (1) Preparation of birds. A-1, p. 259; B-6, pp. 2-4
       (2) Equipment for caponizing. A-1, pp. 259-260; B-6, pp. 2-4; B-19, pp. 2-4; C-13
       (3) Steps in the operation. A-1, pp. 260-265; B-6, pp. 4-6; B-19, pp. 4-7
           (a) Take precautions to avoid losses and slips.
       (4) Care of birds after the operation. A-1, p. 265; B-6, pp. 7-8; B-19, p. 9
13. Rearing young stock on range. A-1, p. 91; B-8
    a. Providing suitable range quarters and equipment.
    b. Characteristics of a desirable range.
14. Confinement rearing. A-1, p. 96
15. Brooding records are desirable. A-1, p. 98; A-2, pp. 186-188; C-5

JOB 4. DETERMINING THE FOOD REQUIREMENTS OF CHICKS AND GROWING STOCK FOR MEAT PRODUCTION

A. Teaching aims—To develop the ability of the farmer—
   1. To determine the purposes of food for poultry.
   2. To determine the food elements needed by poultry.
   3. To determine the characteristics of an ideal poultry ration.

B. References for this lesson—(see key list on pp. 20-22)
   1. (A)—1, 3, 5
   2. (B)—11, 34
   3. (C)—6, 7, 8, 9

C. Suggested problems for study and discussion—
   1. Determining the purposes for which food is used by poultry. A-3, pp. 175-176
      a. Preservation of life. A-1, p. 102
      b. Maintain a state of good health. A-1, p. 103
      c. Growth and fattening. A-1, p. 104; A-5, pp. 807-818
   2. Supplying the nutritive elements necessary in poultry feeding. C-6; C-7
      a. Water. A-1, p. 106; A-5, p. 825
      b. Proteins—values and sources. A-1, pp. 108-113; A-5, p. 821
      c. Carbohydrates—values and sources. A-1, pp. 113-116; A-5, p. 820
      d. Fats. A-1, p. 116
      e. Minerals—purposes and sources. A-1, pp. 117-121; A-5, p. 822
      f. Vitamins—purposes and sources. A-1, pp. 121-131; A-5, p. 823; B-11; C-8; C-9
      g. Grit. A-5, p. 823
   3. The organs of digestion and the digestive process of the chicken. A-1, pp. 144-147
   4. Determining the characteristics of an ideal poultry ration.
      a. Balance of nutrients.
      b. Palatability
      c. Variety
      d. Bulkiness
      e. Wholesomeness
      f. Effect on product
      g. Economy

      } A-1, pp. 134-138
   5. Emergency poultry rations. B-34

JOB 5. FEEDING CHICKS AND GROWING STOCK FOR MEAT PRODUCTION

A. Teaching aims—To develop the ability of the farmer—

1. To feed chicks and growing stock in accordance with the best known methods.
2. To balance and feed good starting and growing rations.
3. To feed chicks and growing stock for rapid, uniform, and efficient meat production gains.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—1, 5
2. (B)—6, 11, 12, 13, 14, 15, 19
3. (C)—3

C. Suggested problems for study and discussion—

1. The first feeding. A-1, p. 150; B-12
2. Providing suitable hoppers and waterers. B-11;
   a. Adequate feeding space is essential. A-1, p. 151
   b. Adequate watering space is essential. A-1, p. 152
3. Using the best methods of feeding. A-1, p. 153
   a. Hopper method.
   b. Hopper and litter method.
   c. Feed containers should aid sanitation. B-12
4. A constant supply of clean, fresh water is essential. B-12
5. Starting rations. A-1, p. 154; A-5, p. 833
6. Rations for growing stock on range. A-1, p. 155; A-5, p. 835; B-12
   a. Poultry pastures. B-13; B-14
7. Rations for confinement feeding. A-1, p. 156
8. Developing rations. A-1, p. 156
9. Feed consumption, growth standards, and mortality. A-1, pp. 157-160; B-12
10. Feeding and growing capons. B-19, p. 9; B-6, p. 7; A-1, p. 266

JOB 6. CONTROLLING DISEASES AND PARASITES OF YOUNG STOCK

A. Teaching aims—To develop the ability of the farmer—

1. To maintain the health of the young flock.
2. To observe poultry carefully to detect symptoms of diseases and parasites.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—1, 7
2. (B)—16, 17, 18
3. (C)—11

C. Suggested problems for study and discussion—

1. Consider the nature and importance of controlling poultry diseases and parasites. A-7, p. 941; A-7, pp. 1003-1006; A-1, p. 328; B-16; B-17
2. Prevent diseases and parasites. B-16, p. 2; A-1, p. 361; B-17, p. 7
   a. Sanitation is essential. B-18, pp. 3-5
      (1) Clean ground
      (2) Clean litter
      (3) Clean feed
      (4) Clean management
   b. Vaccination is necessary in some communities
3. Control and eradicate diseases and parasites. B-16, p. 3; A-7, pp. 1007-1014
   a. Isolate affected birds
4. Disinfectants and disinfection. B-16, p. 3; A-1, p. 360; B-18, p. 3
5. Start with well-bred healthy chicks. B-18, p. 1
   a. Purchase chicks from reliable nearby sources.
   b. Purchase chicks from disease-free flocks.
6. Diseases and ailments most common to young stock. B-18
   a. Pullorum disease. A-7, pp. 931-943; C-11
   b. Coccidiosis. A-7, pp. 1041-1047
   c. Colds. (Coryza) A-1, pp. 969-972
   d. Leg weakness (Vitamin D deficiency). A-7, p. 1081
   e. Cannibalism. A-7, p. 1098
   f. Bronchitis. A-7, p. 968
   g. Laryngotracheitis. A-7, pp. 963-968

JOB 7. FATTENING AND CONDITIONING POULTRY FOR MARKET

A. Teaching aims—To develop the ability of the farmer—
   1. To finish growing stock for economical meat production.
   2. To follow the most efficient methods of preparing poultry for market.

B. References for this lesson—(see key list on pp. 20-22)
   1. (A)—1, 2, 3, 4, 5
   2. (B)—21
   3. (C)

C. Suggested problems for study and discussion—
   1. The reason for fattening. A-1, p. 105; A-3, p. 403
   2. Deciding when to sell. A-2, pp. 306-308
   3. Fattening rations. A-1, p. 157; A-1, p. 170; A-5, pp. 807-818; A-2, p. 310
   4. Special fattening processes. A-3, pp. 403-409; A-2, p. 308; A-4, p. 357; B-21, pp. 15-18
      a. Range fattening.
      b. Pen fattening.
      c. Crate fattening.
      d. Commercial fattening.
         (1) Start feed gradually.
         (2) Avoid over-feeding.
   5. Selecting poultry for fattening.
      a. Broilers, fryers and roasters.
         (1) Rapid growth necessary for profit.
         (2) Additional fattening generally unnecessary.
      b. Capons.
         (1) Fatten when a large well-covered frame has been developed.
      c. Mature hens and cocks.
         (1) Finish as market requires.

JOB 8. KILLING AND DRESSING POULTRY FOR MARKET

A. Teaching aims—To develop the ability of the farmer—

1. To kill and dress poultry effectively and economically.
2. To kill and dress well finished poultry to meet market demands.
3. To obtain higher prices for poultry meat.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—1, 2
2. (B)—10, 20, 32
3. (C)—12

C. Suggested problems for study and discussion—

1. Methods of killing poultry. A-1, pp. 393-396; B-20, p. 2; B-10
   a. Beheading
   b. Dislocating the neck. A-2, p. 316
   c. Sticking and debraining. A-2, p. 314
2. Methods of removing feathers. A-1, pp. 396-398; B-20, p. 4; B-10
   a. Dry plucking
   b. Scalding
   c. Semi-scalding
   d. Wax plucking. B-32
3. Cooling dressed poultry. A-1, p. 398
   a. Cleaning the carcass. A-2, p. 318
4. Drawing dressed poultry. A-1, pp. 398-400; A-2, pp. 321-327
5. Skinning broilers. B-20, p. 8
6. Losses in dressing poultry. A-1, p. 401; B-20, p. 10

JOB 9. MARKETING POULTRY

A. Teaching aims—To develop the ability of the farmer—

1. To market well-conditioned poultry effectively and economically.
2. To become familiar with the market grades of live and dressed poultry.
3. To interpret and intelligently utilize the information contained in the market reports.

B. References for this lesson—(see key list on pp. 20-22)

1. (A)—1
2. (B)—5, 21, 28
3. (C)—

C. Suggested problems for study and discussion—

1. Market channels for poultry. B-21, pp. 6-8; A-1, p. 403
   a. Producer to consumer.
   b. Producer to poultry dealer.
   c. Producer to poultry packer.
   d. Cooperative marketing.
      (1) Auctions
2. Market grades and quotations. B-21, pp. 8-10; A-1, p. 389
   a. Good quality in live poultry is important. A-1, p. 389
3. Marketing live poultry. A-1, p. 391
   a. Truck and express shipments.
   b. Freight shipments.
4. Marketing dressed poultry. A-1, p. 393
   a. Direct to consumers.
      (1) Blood and feather dressed
      (2) Full dressed
      (3) Cut up into halves, quarters, or sections.
   b. For large markets.
      (1) Shipped as fresh killed or frozen.
5. Grades of dressed poultry. A-1, p. 401; B-21, p. 29
6. Packing dressed poultry. A-1, p. 402; B-21, p. 29
7. Increasing poultry consumption. A-1, p. 405; B-5, p. 41
8. Points for the producer of poultry meat to remember. B-21, p. 33
9. Storing poultry meat for home use. B-28

JOB 10. PRODUCING TURKEYS, DUCKS AND GEESE FOR MEAT

A. Teaching aims—To develop the ability of the farmer—
   1. To grow turkeys and other fowl economically.
   2. To market turkeys and other fowl effectively and efficiently.

B. References for this lesson—(see key list on pp. 20-22)
   1. (A)—4, 6, 7, 8
   2. (B)—22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33
   3. (C)—9

C. Suggested problems for study and discussion—
   1. Selecting breeds and varieties.
      a. Turkeys. A-8, pp. 34-40; A-6; B-22, pp. 2-6; B-23, pp. 2-5
         (1) The Bronze
         (2) The White Holland
         (3) The Bourbon Red
      b. Ducks. A-6; B-30; B-31; B-33
         (1) The Pekin
         (2) The Muscovy (colored)
         (3) The Runner (fawn and white)
      c. Geese. A-6; B-31; B-33
         (1) The Toulouse
   2. Brooding and rearing.
      a. Poults. B-23, pp. 5-13; A-8, Ch. 10; B-22, pp. 20--23
         (1) Prevention and control of cannibalism.
         (2) Reducing mortality—sanitation
         (3) Wire and slatted floors.
         (4) Range—number of birds per acre—shade. B-24, p. 37
         (5) Equipment for brooding and rearing. B-24, pp. 30-36
      b. Ducklings. A-4, p. 383; B-25, p. 15; B-30; B-31; B-33
         (1) Sanitation
         (2) Protection from sun and rain.
      c. Goslings. A-4, pp. 387-388; B-31; B-33
         (1) Sanitation
         (2) Abundant pasture—shade

3. Feeds and feeding.
   a. Poults. A-8, Ch. 11
      (1) Food requirements. B-24, pp. 3-5
         (a) Protein
         (b) Vitamins. C-9
         (c) Minerals
      (2) Rations. B-24, pp. 5-6; B-22, p. 26
      (3) Feeding suggestions. B-24, pp. 6-8; B-22, pp. 23-29
         (a) Adequate hopper space—sanitation
         (b) Green feed and pasture is essential
         (c) Grain and water consumption
         (d) Fattening for market. B-22, p. 38
   b. Ducklings. B-25, pp. 16-18; B-30; B-31; B-33
      (1) Methods
      (2) Feeding
      (3) Fattening. A-4, p. 383
   c. Goslings. B-31; B-33
      (1) Feeding. B-26, p. 12
      (2) Fattening. A-4, p. 388
4. Preventing and controlling diseases and parasites.
   a. Poults. A-8, Chs. 14-15
      (1) Prevent diseases through sanitary measures.
      (2) Prevent parasites through careful management.
      (3) Control blackhead
      (4) Control lice and mites.
   b. Ducklings. B-30
      (1) Prevent diseases through sanitary measures.
   c. Goslings
      (1) Prevent diseases through sanitary measures.
   d. Common diseases and parasites of turkeys, ducks, and geese. A-7, Part 7

5. Killing and dressing turkeys, ducks and geese for market.
   a. Turkeys. A-8, pp. 494-512; B-27, pp. 2-17; B-29
      (1) Selecting for market
      (2) Catching and handling live birds.
      (3) Bleeding and killing.
      (4) Picking—wax method.
      (5) Cleaning the carcass
      (6) Wrapping the head.
      (7) Sewing torn skin.
      (8) Removing the crop.
      (9) Pre-cooling.
   b. Ducks.
      (1) Preparing for market. B-25, pp. 20-21; B-30
   c. Geese
      (1) Preparing for market. B-26, pp. 13-14
6. Marketing turkeys, ducks and geese.
   a. Turkeys.
      (1) Live and dressed marketing. A-8, p. 490
      (2) When to market. A-8, p. 493
      (3) The grading of live turkeys for market. A-8, pp. 498-504
         (a) U. S. Grades. A-8, p. 500
         (b) Causes of low grades. A-8, p. 501
      (4) Dressed turkey grades and grading. A-8, pp. 520-525
         (a) General requirements for all U. S. Grades. A-8, p. 523
      (5) Packing turkey carcasses. A-8, p. 525; B-27, pp. 20-26
         (a) Boxes
         (b) Barrels
         (c) Marking the packages
      (6) Sharp freezing and cold storage lockers. B-28
      (7) Marketing channels. A-8, pp. 527-542
   b. Ducks. A-4, p. 384; B-30
   c. Geese. A-4, p. 388

IV. SUGGESTED REFERENCE MATERIAL

Books (A)

1. Knandel, Profitable Poultry Keeping. Orange-Judd Pub. Co., N. Y., 1941
2. Rice and Botsford, Practical Poultry Management, J. Wiley & Sons., Inc., N. Y., 1940
3. Lewis, Productive Poultry Husbandry, J. B. Lippincott Co., Philadelphia, 1933
4. Dickinson and Lewis, Poultry Enterprises, J. B. Lippincott Co., Philadelphia, 1939
5. U. S. D. A., Food and Life, Yearbook of Agriculture, 1939
6. American Poultry Association, Standard of Perfection, Book Dept., Everybodys Poultry Magazine, Hanover, Pa., 1942
7. U.S.D.A., Keeping Livestock Healthy, Yearbook of Agriculture, 1942
8. Marsden and Martin, Turkey Management, Interstate, Danville, Ill., 1939

Bulletins and Circulars (B)

1. Farm Poultry Raising, F. B. 1524, U.S.D.A.
2. The Poultry and Egg Situation (1943 Outlook), Bureau of Agricultural Economics, U.S.D.A.
3. The Agricultural Situation, Bu. of Agrl. Ec., U.S.D.A.
4. Poultry Outlook Material for Pennsylvania, Dept. of Agrl. Ec., The Pennsylvania State College
5. An Economic Survey of the Commercial Broiler Industry, Agricultural Adjustment Administration, Division of Marketing and Marketing Agreements, U.S.D.A.
6. Capon Production in Pennsylvania, Circular 182, The P.S.C.
7. Electric Brooding Under Winter Conditions, Bul. 416, The P.S.C.
8. Summer Shelter for Pullets, Leaflet 40, The P.S.C.
9. Poultry Houses and Fixtures, F. B. No. 1554, U.S.D.A.
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28. Preservation of Meats and Poultry in Frozen-Food Lockers, Ext. Bul. 223, Michigan State College, East Lansing, Mich.
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31. "Inform-You-Form" Duck and Goose Problems, American Poultry Journal, 536 S. Clark St., Chicago, Ill.
32. Wax Picking of Poultry, Hints To Poultrymen, Vol. 24, No. 6, N. J. Agrl. Exper. Sta., New Brunswick, N. J.
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36. Poultry Record and Breed Associations. De Laval Diary, 1943
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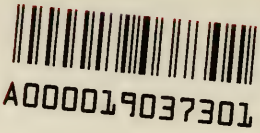
Visual Aids (C)

1. Poultry House Blue Prints, Everybodys Poultry Magazine, Hanover, Pa.
2. Planning Good Houses, American Poultry Journal, 536 S. Clark St., Chicago, Ill.
3. Sample of poultry feeders and waterers.
4. Samples of brooder thermostats.
5. Samples of poultry record forms, Commercial Feed Companies.
6. Samples of feed, grit, and minerals.
7. Samples of vitamin carriers.
8. The Vitamin Chart With Emphasis on Poultry Nutrition, The Beacon Milling Co., Inc., Cayuga, N. Y.
9. Summary of Vitamins Required by Four-Footed Animals and Poultry, Standard Brands, Inc., 595 Madison Ave., at 57th St., N. Y.
10. Color Pictures of Poultry, American Poultry Journal, 536 S. Clark St., Chicago, Ill.
11. Pullorum disease. Poster, U.S.D.A.
12. Killing and dressing equipment.
    a. Sash cord and block for shackle.
    b. Blood cup.
    c. Killing knife.
    d. Drawing knife.
    e. Heavy knife.
    f. Bone shears.
13. Caponizing set, board, shackles, etc.
14. Poster: A Guide To Quality Poultry, U.S.D.A.
15. Motion Picture: Producing Quality Poultry, U.S.D.A.
16. Poultry Outlook Charts, U.S.D.A.

V. SUGGESTED APPROVED PRACTICES WHICH SHOULD DEVELOP FROM THE COURSE

1. Increase the production of poultry for meat efficiently.
2. Select healthy chicks of desirable breeds and strains for maximum meat production.
3. Brood chicks efficiently and well.
4. Rear a high percentage of meat birds.
5. Supply proteins in well-balanced rations.
6. Supply carbohydrates and fats in well-balanced rations.
7. Feed minerals, vitamins, water, green food, and grit in accordance with requirements.
8. For rapid, uniform, and efficient meat production gains, feed chicks and growing stock in accordance with their requirements.
9. Feed growing and fattening poultry in accordance with their requirements.
10. Control diseases and parasites of young stock by recognizing common symptoms early and by practicing sound control measures.
11. Maintain the health of the young stock through clean management.
12. Finish growing stock efficiently for effective marketing.
13. Kill and dress well-finished poultry in accordance with market demands.
14. Market well-conditioned poultry in accordance with grades of live and dressed poultry.
15. Utilize the best methods of marketing to insure the highest quality of marketable poultry meat.
16. Produce turkeys, ducks, and geese for efficient meat production.
17. Market live and dressed turkeys, ducks, and geese in accordance with market grades and market demands.

Aaron Bldg.



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